19: Talbot E-4,5 (1956-1962)1964 FL12 Masai FL12

*13 as a base camp for construction of the Uganda railway.
182
184 Today it is a modern city of about 250,000 people. Spreading south and east from the city along the edge of Masailand are fenced ranches and farms. The Great North (Cape to Cairo) Road runs dustily through Eastern Masailand. Arusha, virtually surrounded by Masailand in northern Tanganyika, is a provincial capital and the center of a flourishing farming district. The provincial headquarters for the Masai Administration in both Tanganyika and Kenya are situated in Eastern Masailand.

The Masai living east of the Rift are from different sections of the tribe than those living to the west, and they are significantly less conservative. Consequently Eastern Masailand has received more ranching schemes, water holes and other projects to "improve" their livestock grazing than Western Masailand, and therefore Eastern Masailand is far more seriously overgrazed. Over much of the area vegetation is impoverished and surface conditions show severe desiccation.

* 12.
*13
213 It is difficult to obtain quantitative data on the numerical increase in livestock or its impact on the vegetation, since such data from earlier years are not generally available. One area where such data

12
13
233

are available will serve as an example.

12
13
175
233

Passing north from Arusha, the Great North Road skirts Mt. Meru, then crosses about 40 miles of fairly level land before passing Longido Hill, 14 miles south of the Kenya border. In German times (prior to 1918) the land from here westward into the Great Rift was maintained as a game reserve and Masai were excluded. From the descriptions of East African residents who visited the area during and just after the 1914-1918 war, and from the description and vegetation map of Jaeger (1913) this area was open perennial Themeda grassland, with good grass cover and abundant wildlife.

The British took over Tanganyika as a Trust Territory after World War I, and in the 1920's they opened the reserve to the Masai. For a time the Masai had moderate numbers of livestock, grazed seasonally in the area along with the wild ungulates. Then a series of water points were provided, using bore holes and piping water into the grassland from springs on nearby wooded mountains. This water allowed the Masai to keep their cattle year-long in areas formerly used only seasonally, with the result that most of the area has been devastated. The Themeda with the rest of the perennial grass cover [illegible]

12 13 233 182

erosion pan and blowing sand and dust. Thorn bush has invaded the area and the aspect at present is of an open thorn bush wasteland with virtually no herbaceous ground cover. One vestige of the former grassland remains. At mile 29 from Arusha, the road passes through a roughly half mile wide strip of open perennial grassland. This is the bottom end of a European ranch where grazing has been strictly controlled.

13 182 233

The grazing-induced devastation seen in the above example is repeated, in greater or lesser degree, throughout Eastern Masailand.

The wildlife in Eastern Masailand has been severely affected by this recent land abuse. Diversion of water to the Masai water points has denied the wild animals many of the sources of water they previously relied upon during the dry seasons. Of the seven or eight major dry season water supplies that existed in Eastern Masailand in Tanganyika, less than 20 years ago, only two remain at present (Talbot, Talbot, and Lamprey, 1961). Overgrazing by domestic livestock has altered or removed the grass cover which provided much of the food supply for the wild ungulates. The overgrazing-induced change from grassland to thorn scrub removes much of the habitat unsuitable for the open

19: Talbot E-4,5 (1956-1962)1964 FL12 Masai FL12

and most widespread such ecosystems of Africa. While most African grassland ecosystems, including those of Eastern Masailand, have been modified by changes in human activities, those in Western Masailand have remained largely undisturbed.

Although separated by the Rift, Eastern and Western Masailand were ecologically identical when the first white men arrived less than a century ago. Therefore these two land units provide the "before" and "after" examples, the control situation and the modified one. From this situation one may describe: the factors in operation in the undisturbed ecosystem; those in the disturbed situation; the nature of the changes and the factors involved; and the rates of change.

The ecological and topographical barriers around Western Masailand are sufficiently effective that the boundaries of the ecological unit appear to have been essentially the same since prehistoric times.

The study area, therefore, presents an opportunity to study as complex an undisturbed primitive grassland ecosystem as it is possible to find.